

**REMARKS**

Claims 1-15 and 20-33 are pending in the application.

Claims 1, 3-14 and 20-32 have been rejected.

Claims 15 and 33 have been objected to.

Claim 2 has been allowed.

**I. SPECIFICATION**

Applicant has previously amended the specification to insert the application serial numbers of the related applications. Applicant has corrected the reference to FIG. 9 on page 7 to read "FIG. 8".

**II. INFORMATION DISCLOSURE STATEMENT (IDS)**

The prior Office Action requested that the IDS filed on March 17, 2000 be resubmitted. Applicant has again reviewed its file and it does not appear that an IDS was filed on March 17, 2000. In the event the Examiner is referring to the IDS filed on February 18, 2004, Applicant hereby submits another copy of that IDS.

**III. DRAWINGS**

The Office Action objects to FIGURE 1 (item 100), FIGURE 5 (item 500), FIGURE 7 (items 800, 840, 880) and FIGURE 9 (items 900) as requiring "descriptive wording," citing 37 CFR 1.83(a). These objections are respectfully traversed. However, in order to further prosecution of this application, Applicant is submitting proposed drawing corrections for

Figures 1, 5, 7 and 8 (not Figure 9). Accordingly, Applicant requests withdrawal of the objection to the Figures.

IV. REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Daniel, et al. (US 5,726,985). The rejection is respectfully traversed.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Applicant's invention, as claimed in independent Claims 1 and 20, are methods and apparatus that dynamically adapt a PBX network to maintain a Quality of Service (QoS) level in the network. For ease of comparison, Applicant sets forth below those portions of Daniel cited by the Office Action as anticipating Claims 1 and 20:

Consequently, differing classes of service are provided to users of ATM systems. One class of service is constant-bit-rate (CBR) service, and is commonly used for audio communications and un-compressed video information. With constant-bit-rate service a cell is transmitted from a given connection on a regularly repeating time interval, perhaps one cell every couple of microseconds. Another class of service is variable-bit-rate (VBR) service, and is commonly used to transmit compressed video data. The cell rate in this instance is variable dependent on the video compression technique in use and the video image contents (i.e., rate of video image change or frames per second). Understandably, managing these variable-bit-rate services becomes a

burdensome task when a multitude of connections (perhaps in the thousands) are being maintained simultaneously. Col. 3, lines 26-41.

Still further, the present invention has as an object the provision of an ATMCSI/TU having a scheduler-based and variable transmission interval technique for traffic shaping of a variable-bit-rate (VBR) traffic stream.

Accordingly, the present invention provides an ATMCSI/TU having a scheduler-based implementation of a traffic shaper rather than a more conventional timer-based traffic shaper.

An advantage of the scheduler-based traffic shaping carried out by the present invention is a reduction in CPU workload, and an increased data transfer rate. Col. 8, lines 16-27.

This shaping can either be fixed for the duration of a connection (such as for VBR traffic), or can vary in response to network congestion (for example, for ABR traffic). Col. 33, lines 51-54.

Applicant has reviewed these portions of Daniel, and respectfully submits that these passages do not anticipate Applicant's claimed invention. More specifically, Daniel fails to disclose identifying a parameter (e.g., latency, packet loss rate, bandwidth availability, as described in the specification, pages 10-13) associated with a data packet transported across the network, and measuring that parameter. Moreover, Daniel fails to disclose enabling optimization (optimization mechanism, optimization enabling device) of the network bandwidth (adjusting or optimizing the bandwidth of the network) when a measured parameter (of a data packet transported across the network or a value associated with a given packet) differs from a predetermined value. The cited passages of Daniel simply fail to disclose each and every element/feature of Applicant's Claims 1 and 20. As such, Daniel does not appear to adapt the PBX network in order to maintain a QoS in the network, but describes some sort of "traffic shaping" that "requires that cells from a connection (i.e., a VC) be scheduled for transmission

at a specific time in the future”. Col. 33, lines 51-57. No identifications of a parameter of a data packet or measurements of the parameter, and no enabling optimization of the network bandwidth are described in Daniel, as set forth in Applicant’s claims.

Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102(b) rejection of Claims 1 and 20.

V. REJECTIONS UNDER 35 U.S.C. § 103

Claims 3, 6-8, 21 and 24-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniel (US 5,726,985) as applied to claims 1 or 20, and further in view of Chang, et al. (US 2003/0091028). Claims 4-5 and 22-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniel (US 5,726,985) as applied to claims 1 or 20, and further in view of Campbell, et al. (US 2003/0140159). Claims 9-15 and 27-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniel (US 5,726,985) in view of Chang, et al. (US 2003/0091028) in further view of Geagan, III, et al. (US 6,363,371). The rejections are respectfully traversed.

Because the Office Action has failed to establish a prima facie case of anticipation of independent Claims 1 and 20 over Daniel, and for the reasons set forth below, Applicant respectfully submits that each proposed combination of Daniel-Chang, Daniel-Campbell and Daniel-Chang-Geagan fails to disclose, teach or suggest Applicant’s invention. As noted above, Daniel fails to disclose any of the three main elements/features of Applicant’s independent Claims 1 and 20. Thus, utilization of the Daniel reference as the main reference in the Office

Action's obviousness rejections renders such rejections as failing to establish a prima facie case of obviousness.

In addition, the secondary references fail to cure the deficiencies in Daniel. Chang appears to disclose that when the QOS of VoIp network calls falls below a predetermined threshold, the gateway server switches the call to a PSTN connection. Chang, paragraph 0163. Thus, Chang teaches away from enabling optimization of the network bandwidth for the network - as Chang switches networks.<sup>1</sup>

Campbell appears to recite that when inter-arrival times between subsequent packets in a single video stream exceed an expected value, this constitutes congestion in the network, and then the source of the video stream "thins" the video stream to reduce the amount of data injected in the network. Campbell, paragraphs 0136 thru 0139. Applicant respectfully submits that Campbell does not enable optimization of the network bandwidth (such as static or adaptive bandwidth optimization, as described in Applicant's specification), but simply slows down the data input rate from a particular source. Thus, Campbell does not necessarily "maintain" the quality of service of the network, but simply reduces the data input rate for a specific video stream.

Accordingly, Applicant respectfully requests withdrawal of the § 103(a) rejections of Claims 3-14 and 21-32.

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<sup>1</sup> Moreover, Geagan fails to cure the deficiencies in Daniel and Chang.

VI. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

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**AMENDMENTS TO THE DRAWINGS:**

Proposed drawing corrections are being submitted concurrently herewith by submitting substitute drawing sheets.